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(11) Publication number:

0 421 956 A1

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 90830430.6

(51) Int. Cl. 5: **A23K 1/00**

(22) Date of filing: 02.10.90

(30) Priority: 06.10.89 IT 6785589
31.10.89 IT 6793089

(43) Date of publication of application:
10.04.91 Bulletin 91/15

(84) Designated Contracting States:
AT BE CH DE DK ES FR GB GR LI LU NL SE

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(54) Food product for domestic animals and a method for its manufacture.

(57) A food product for dogs and cats consists of a paste of meat, vegetables, eggs, mineral salts, maize flour, soya lecithin, milk or its derivatives, which is subsequently moulded to a desired shape. The product thus shaped is then freeze dried.

EP 0 421 956 A1

FOOD PRODUCT FOR DOMESTIC ANIMALS AND A METHOD FOR ITS MANUFACTURE

The present invention relates to a food product for domestic animals.

The object of the invention is to provide a food product for domestic animals which is immediately ready for consumption.

This object is achieved by virtue of the fact that the food product comprises the following components:

Components	% by weight
Meat	65-85
Vegetables	4-12
Eggs	3.5-11
Mineral salts	0.2-2
Maize flour	2-8
Soya lecithin	1-6
Milk or its derivatives	1-8

These components are preferably mixed together so as to form a cake or titbit.

The mineral salts preferably comprise salts of phosphorus, calcium, zinc and manganese. The meat is preferably selected from chicken, beef, rabbit, turkey and fish and offal may be used to advantage.

Of the vegetables, those particularly preferred are carrots, spinach, peas, lentils, beets and catmint.

0.1 to 10% of olive pulp and 0.1 to 10% of yeast are preferably added to the composition.

The composition mentioned above is particularly useful as cat food. For dogs the composition is essentially the same but the addition of a variable percentage of fruit (apricots - apples - pears - peaches - bilberry - grapes).

The composition of the invention may be used in the form of a freeze dried powder as a food supplement for domestic animals.

Its use as a food supplement is particularly indicated for puppies which are not attracted by certain foods although they are necessary for their weaning. In this case, it suffices to sprinkle the food with the freeze-dried, powdered composition of the invention so that the animal is strongly attracted to it in that the delicate flavour is enhanced. The flavouring effect of the food supplement may also be used to advantage for animals which have lost their appetite or are convalescent and normally refuse the necessary medicines; if the medicine is sprinkled with a small amount of the powder the animal is strongly attracted to it.

The food compositions of the invention may also be used for animals which are suckling and for animals without teeth which may be provided with small doses of the product instead of the daily food intake by the simple addition of water, milk or broth to make it into a cream. The supplement may also be packaged directly in milk, in rice flour, in cheese, in various forms of yoghurt and in potatoes for feeding to domestic animals.

For dogs, the addition of olive pulp is not essential and may be replaced by the addition of a variable percentage of fruit such as apricots, apples, pears, peaches, grapes etc.

The composition according to the invention may comprise to advantage also magnesium salts and vitamin B6.

The freeze-dried product according to the invention has a very low humidity, which may vary from 1.3 to 2.7% by weight. The analysis of the dried substance pointed out the following average composition:

raw proteins :	45-77 % by weight
raw lipids :	10-40 % by weight
raw fibre :	0.2-0.8 % by weight
ash :	3.5-6 % by weight
not-nitrogenous extract:	6.7-12 % by weight

A further subject of the invention is a method for the production of the said product. This method includes the step of mixing the components listed above into a paste or dough, modelling the paste to a

desired shape in a mould, freeze drying and packaging it in a gas-impermeable wrapper.

This method enables the freeze-dried product, if formed into a cake, to re-absorb the necessary moisture simply by immersion in water, milk or broth. Moreover, whenever the product is granulated or powdered or is shaped into a cake, titbit or bar, it may be fed directly to the domestic animal.

- 5 Further advantages and characteristics of the product and of the method of the invention will become apparent from the following example which must not be understood as limiting the scope of the present invention.

10 Example

In order to obtain a cat food, the following quantities of ingredients are mixed into a paste:
meat-132g; vegetables-11g; eggs-9g; olive pulp-3g; salts of phosphorus-0.5g; salts of calcium-0.8g; salts of
zinc-2.5mg; salts of manganese-0.25mg.

- 15 Maize flour, soya lecithin and milk are then added in the quantities necessary to form a paste of a suitable consistency. The paste is subsequently pressed into a cake-shaped mould. The cake thus formed is introduced into a freeze-drying plant of known type in order to reduce the moisture content to values of approximately 1%. At the outlet from the freeze-drying plant, the product is packaged in a gas-impermeable envelope.

- 20 In use of the product, it suffices to immerse the cake in water, milk or broth for a few moments and to feed it, for example in slices, to the domestic animal.

Claims

- 25 1. A food product for domestic animals, characterised in that it comprises the following components:

Components	% by weight
Meat	65-85
Vegetables	4-12
Eggs	3.5-11
Mineral salts	0.2-2
Maize flour	2-8
Soya lecithin	1-6
Milk or its derivatives	1-8

- 30 2. A food product according to Claim 1, characterised in that it further includes from 0.1 to 10% by weight of olive pulp.
3. A food product according to Claim 1 or Claim 2, characterised in that it further includes from 0.1 to 10% by weight of yeast.
4. A food product according to Claim 2, characterised in that the olive pulp content is in the range 0.5 to 5% by weight.
- 45 5. A food product according to any one of the preceding claims, characterised in that it further includes from 0.1 to 10% of freeze-dried powdered fruit.
6. A food product according to any one of the preceding claims, characterised in that it further includes magnesium salts and vitamin B6.
- 50 7. A method for the manufacture of a food product for domestic animals, characterised in that it comprises the following steps:
- forming a mixture of components into a paste, the components comprising from 65 to 85% by weight of meat, from 4 to 12% of vegetables, from 3.5 to 11% of egg, from 0.2 to 2% of mineral salts, from 2 to 8% of maize flour, from 1 to 6% of soya lecithin, from 1 to 8% of milk or its derivatives,
 - modelling the paste obtained to a desired shape (for instance cake, titbit or bar) in a mould, freeze drying the product, and
 - packaging it in a gas-impermeable wrapper.
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EUROPEAN SEARCH REPORT

Application Number

EP 90 83 0430

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CL.5)
A	FR-A-2 034 080 (BARDET MICHEL et al.) * Claims 1,3,6,7,9,10; page 2, lines 2-9,14-17 *	1,3,7	A 23 K 1/00
A	DE-A-3 031 896 (E. MULLER) * Claim; page 2, paragraphs 1-3; page 4, paragraph 3 *	1	
A	AU-A- 495 306 (STAR-KIST FOODS, INC.) * Claims 1-3; example I, table 1; example II, table 2; example III, table 3; example IV, table 3; example V, table 4 *	1	
A	PATENT ABSTRACTS OF JAPAN, vol. 9, no. 175 (C-292)[1898], 19th July 1985; & JP-A-60 47 642 (NIHON NOUSAN KOGYO K.K.) 15-03-1985 * Abstract *	1	
A	GB-A-1 440 116 (UNCLE BEN'S OF AUSTRALIA PTY LTD) * Claims 2,4,5; page 3, lines 45-86; examples 3,5,9 *	1	TECHNICAL FIELDS SEARCHED (Int. CL.5) A 23 K
A	EP-A-0 072 878 (SOCIETE DES PRODUITS NESTLE S.A.) * Claims 1,3,6; examples 1,2 *	7	
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	04-12-1990	DEKEIREL M.J.	
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons a : member of the same patent family, corresponding document	